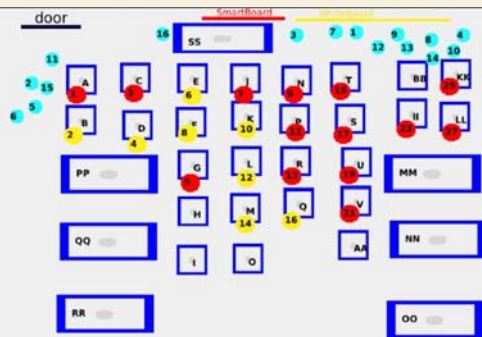


### MATHEMATICAL LITERACY

- Topics chosen to prepare students for General Education Mathematics and Statistics, and Life
  - Numeracy, functions, data analysis
  - Reading, writing, technology
- Group-based problem-solving pedagogy

## A TRADITIONAL CLASSROOM



## A MATH LITERACY CLASSROOM



## MANAGING STUDENT EXPECTATIONS

- Explain *why* the course is set up the way it is
  - Why do we work in groups? Don't you teach?
  - Why do we have to write so much? Can't I just give the answer?
- Give clear expectations on the first day that set the tone for the whole semester
- Remind students often throughout the semester

## PRODUCTIVE STRUGGLE

- Real problems don't follow cookie-cutter patterns; they take work
- Take responsibility
- Persistence will pay off



## MANAGING GROUP WORK

- Students do not already know how to work productively in groups
- Students are not already skilled at managing personality conflicts

Effective group work skills need to be explicitly taught and coached throughout the semester

## ASSIGNING GROUPS

- 3-4 students per group
- Random?
- Mix of abilities
- Spread out unreliable students
- Adjust for personality and potential issues

Don't let students pick their own groups!

## ENCOURAGING PRODUCTIVE GROUPS

- Require full participation
  - Do not allow students to opt out of groups
  - Give points for quality participation
  - Keep students engaged with checkpoints
  - Groups that finish early can help others

## ENCOURAGING PRODUCTIVE GROUPS

- Provide structure to support productive work
  - Assign roles within the group
  - Outline specific goals and required outcomes for each day/activity
  - Discuss the types of questions that should be asked of others in the group – “exploratory talk”
  - Coach groups on how to work together when students work at different paces

## MANAGING GROUP DYNAMICS

- Don't honor requests to change groups
- Coach students in conflict management
- Help groups learn how to distribute tasks evenly
  - Everyone do your own part
  - Allow others to do their part
- Have students evaluate each other
- Change groups every unit for a fresh start

## OUR EXPERIENCE

- Has changed our whole philosophy about teaching
- Most fun we've had since we started teaching
- Get to know students much better
- We can't go back



## CONTACT INFO



Erin Wilding-Martin  
emartin@parkland.edu

Check out my blog at  
[parklandmathliteracy.edublogs.org](http://parklandmathliteracy.edublogs.org)

Brian Mercer  
bmercer@parkland.edu